

REMARKS

The claims in the case are 2, 3, 4, 6, 12, 13, 15, 16, 27-28 and 31-33. Claim 31 has been amended to remove the last three compounds. Claims 12 and 27-28 have been amended to identify the therapeutic purpose of the chemotherapeutic agent recited in those claims. Support for this amendment can be found throughout the specification at, for example, page 5, lines 9-11. It is submitted that no new matter has been added by the above amendments.

Applicants reserve full rights to re-introduce the subject matter cancelled from the claims and claims themselves in this or any other application claiming the benefit of priority to the captioned application.

Request for Prior Art

Pursuant to 37 CFR §1.105, the Patent Office requested that the Applicants identify the “prior art” source of the subject matter excluded by the proviso in claim 1. (Office Action at page 2.)

With all due respect, claim 1 is no longer pending in the captioned application. Therefore it is not possible to respond to this request as it pertains to claim 1.

However, in an attempt to move prosecution to a timely conclusion, this request will be addressed as if it were made to pending claim 2.

The document that serves as the rationale for the proviso in claim 2 is US Pat. No. 5,151,421 (EP 0 371 564), which the Patent Office relies upon in making a substantive rejection under 35 USC 103, as discussed below.

Indefiniteness Rejection

Claims 2, 3, 6, 10-16, 18, 19, 21, 22 and 24-27 were rejected under 35 USC §112, second paragraph. (Office Action at page 8.)

For the reasons set forth below, the rejection is traversed.

To reject a claim under the second paragraph of 35 USC § 112, it is incumbent on the Patent Office to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. This, the Patent Office has not done.

In making the rejection, the Patent Office contended that

Claim 2:

- When R6 is arylcarbonylpiperidinylalkyl, it is not possible to determine if the arylcarbonyl is on the piperidinyl or on the alkyl.

(Office Action at page 4.)

This rejection is respectfully traversed.

The arylcarbonyl group is on the piperidinyl. The piperidinyl in turn is attached to the alkyl group. It is submitted that the only logical way to read this chemical name is from the left to the right. Thus, first an aryl group, then a carbonyl group, then a piperidinyl moiety, and finally an alkyl group. This is clearly illustrated by the Examples (e.g., see Co. No. 10). For this reason the rejection is not proper and should be withdrawn.

- When R6 is arylalkyl(alkyl)aminoalkyl, it is not possible to determine if the aryl is on the first alkyl or the last alkyl.

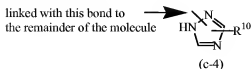
This rejection is respectfully traversed.

It is submitted that the only logical way to read this chemical name is from the left to the right. Thus, first an aryl group, then a, alkyl group, then a branched alkyl, then an amino and then an alkyl. This is illustrated by Co. No. 14. For this reason the rejection is no

- R3 cannot be the triazole choice, because the triazole choice as illustrated does not have an available bond.

This rejection is respectfully traversed.

With all due respect, the bond that is used for attachment is illustrated in (c-4) as depicted below:



The attachment can be positioned in 3 positions (NH or one of the two CH groups). For this reason the rejection is improper and should be withdrawn.

Claims 12 and 27-28:

- It is not possible to determine the purpose for which the chemotherapeutic agent is therapeutic.

This rejection is respectfully traversed.

While it is not seen why a specific function for the claimed chemotherapeutic compounds needs to be recited, Claims 12 and 27-28 have nonetheless been amended to recite that the chemotherapeutic agent is a cancer treating therapeutic agent. With this amendment, it is believed that the instant rejection has been overcome and should be withdrawn.

Obviousness Rejection

Claims 2, 6, and 12 were rejected under 35 USC §103(a) as being unpatentable over US Pat. No. 5,151,421 ("Freyne"). (Office Action at page 4.)

For the reasons set forth below the rejection, respectfully is traversed.

Freyne discloses

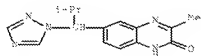
[57]

ABSTRACT

(1H-azol-1-ylmethyl)substituted quinoxaline derivatives, compositions containing the same, and methods of treating mammals suffering from disorders which are characterized by an increased proliferation and/or abnormal differentiation of epithelial tissues.

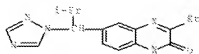
Including compounds 149 and 264 as follows:

RN 130347-01-2, 2(1H)-Quinoxalinone, 3-methyl-6-[2-methyl-1-(1H-1,2,4-triazol-1-yl)propyl]-



and

RN 130347-78-3, 2(1H)-Quinoxalinone, 3-ethyl-6-[2-methyl-1-(1H-1,2,4-triazol-1-yl)propyl]-



of epithelial cells. In particular the compounds of the 40 :
invention can be used for treatment of carcinoma which 1
is essentially a derailment of cellular differentiation,
occurring in epithelial tissues. Other uses include, in

(Col. 19)

In view of their capability to inhibit the biosynthesis of
estrogens and/or androgens the compounds can be used
in the treatment of estrogen or androgen dependent
disorders such as, for example, breast cancer, endome-
triosis, endometrial cancer, polycystic ovarian disease,
benign breast disease, prostatic cancer and hirsutism.

(Col. 20)

In making the rejection, the PTO asserted
inhibitors. The presently claimed compounds are alkyl homologs and/or position
isomers of the Freyne compounds and are well suggested for the same utility.

It would have been obvious to one of ordinary skill in the art when the
present invention was made to modify the Freyne compounds to prepare alkyl
homologs and position isomers thereof. One having ordinary skill in the art
would have been motivated to prepare the instantly claimed compounds because
such structurally homologous and position isomeric compounds are expected to
possess similar properties. It has been held that compounds that are structurally
homologous and/or position isomeric to prior art compounds are *prima facie*
obvious, absent a showing of unexpected results.
(Office Action at pages 4-5.)

II.A.4(c). Compounds that are homologs (compounds differing regularly by successive addition of the same chemical group, e.g., by CH₃- or -CH₂- groups) and/or position isomers (compounds differing by an adjacent or near adjacent functional group), as here, are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 195 USPQ 426 (CCPA 1977).

(Office Action at page 5.)

The compounds of the present application have PARP inhibiting activity. Among other activities, PARP inhibitors are useful as chemosensitizers or radiosensitizers, viz., compounds that increase the sensitivity of cells to ionizing radiation or to chemotherapy. There is no disclosure or suggestion that the compounds disclosed in Freye are PARP inhibitors. Nor is there any disclosure that such compounds have any utility as chemosensitizers or radiosensitizers. For this reason, the rejection is improper and should be removed.

Finally, the Examiner is invited to call the applicants' undersigned representative if any further action will expedite the prosecution of the application or if the Examiner has any suggestions or questions concerning the application or the present Response. In fact, if the claims of the application are not believed to be in full condition for allowance, for any reason, the applicants respectfully request the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP § 707.07(j) or in making constructive suggestions pursuant to MPEP § 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Accordingly, entry of the claims and allowance of the claims is respectfully requested. If the Examiner has any questions regarding this paper, please contact the undersigned.

Respectfully submitted,

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